Allotment Evaluation (AE)
For
Jacona (#541)

Permittee		Authorization Number 3001141 3001144		
Livestock Use	Preference AUMs	Allotment 00541	Active 65 210	Suspended 145 0
	Period of Use	Allotment Jacona	Kind 10 Cattle 21 Cattle	Season of Use 09/16 - 05/14 03/01 - 02/28
	Kind of Livestock	Cow/Calf		
	Percent Public Land	AUMs are authorized at 83% public land		
Allotment Profile	Physical Description	Allotment 541 is located approximately 11 miles northwest of Santa Fe, in Santa Fe County, New Mexico. Elevation on this allotment is roughly between 6,300 and 6,800 feet. Landforms on the allotment include; uplands. Thirteen soil types are identified within the federal lands in this allotment. They include: Alire loam, 2 to 6 percent slopes. This soil consists of loams with rooting depths greater than 60 inches. Parent materials include: Alluvium derived granite, schist, gneiss, loess, and volcanic ash. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by blue grama, black grama, ring muhly, Galleta and broom snakeweed. Buckhorse-Altazano complex, 2 to 8 percent slopes, non-flooded and flooded. These soils consist of coarse and gravelly sandy loams with rooting depths greater than 60 inches. Parent materials include: Alluvium derived from fanglomerate, sandstone, granite and mudstone. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by blue grama, black grama, ring muhly, Galleta, oneseed juniper and broom snakeweed. Dondiego loam, 1 to 3 percent slopes. This soil consists of loams with a rooting depth greater than 60 inches. Parent materials include: Alluvium derived from schist, gneiss, and granite. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by black grama, blue grama, ring muhly, broom snakeweed and Galleta. Horcado-Nazario complex, 2 to 35 percent slopes. These soils		

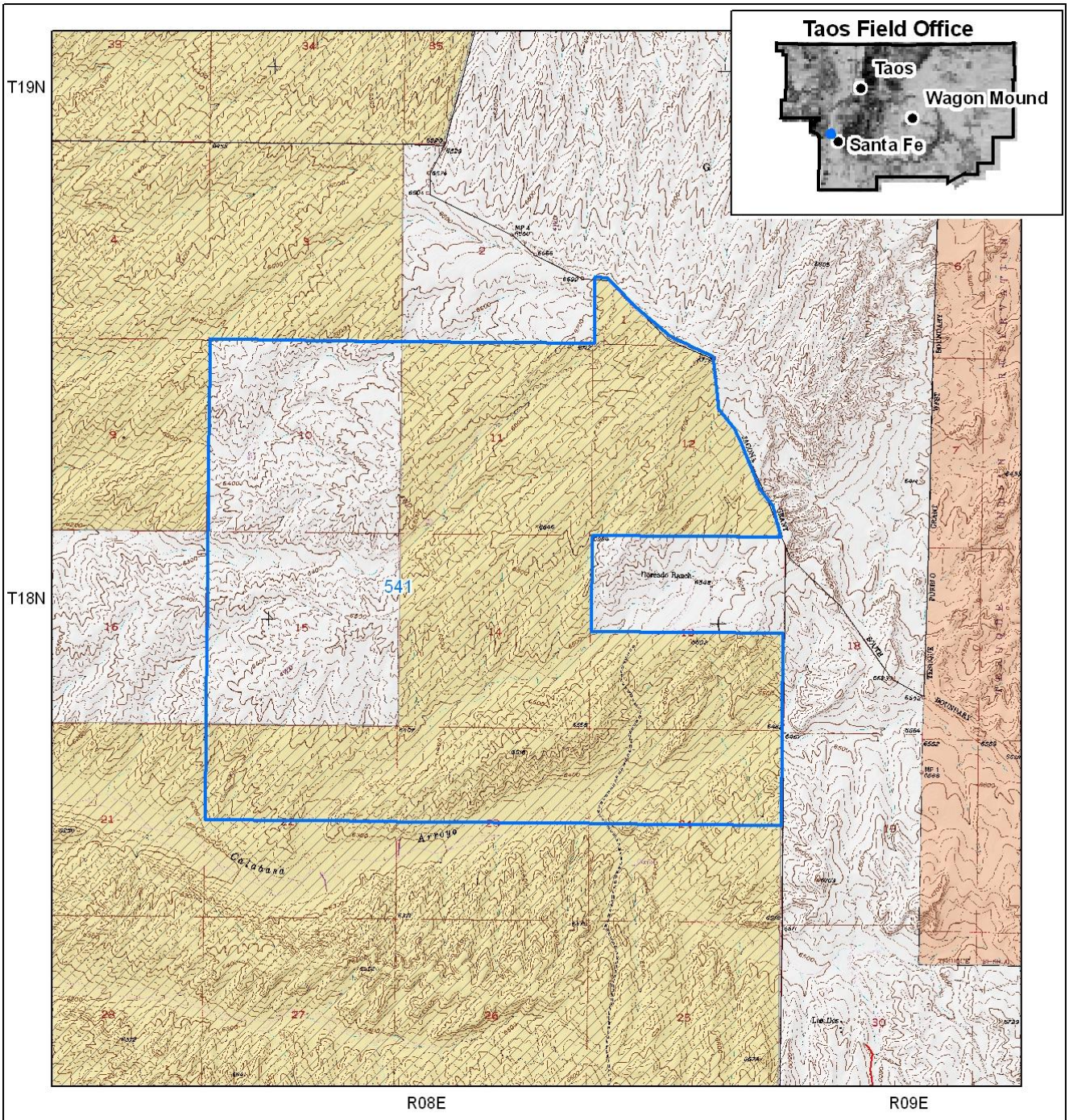
		consist of very gravelly loams with rooting depths greater than 60 inches. Parent materials include: Alluvium derived from schist, gneiss and granite. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by blue grama, black grama, New Mexico feathergrass, oneseed juniper, pinyon pine, sideoats grama, Galleta, bottlebrush squirreltail and broom snakeweed. Junebee gravelly sandy loam, 5 to 15 percent slopes. This soil consists of gravelly sandy loam with a rooting depth greater than 60 inches. Parent materials include: Alluvium derived from mudstone, fanglomerate, sandstone. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by Indian ricegrass, blue grama, sand dropseed and Galleta. Latierra-Lamesilla-Levante complex, 2 to 15 percent slopes, non-flooded and flooded. These soils consist of gravelly coarse sandy loams with rooting depths greater than 60 inches. Parent materials include: Alluvium derived from schist, gneiss and granite. Average annual precipitation in that area ranges from 12 to 14 inches. Vegetation is characterized by blue grama, black grama, New Mexico feathergrass, oneseed juniper, pinyon pine, sideoats grama, Galleta, oak, sand dropseed, Bigelow's rubber rabbitbrush and spike dropseed. Levante-Riverwash complex, 1 to 3 percent slopes, flooded. These soils consist of loamy sands with rooting depths greater than 60 inches. Parent materials include: Alluvium derived from granitic sandstone, schist, gneiss and granite. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by blue grama, sand dropseed, black grama, Bigelow's rubber rabbitbrush, Galleta and spike dropseed. Nazario gravelly loam, 2 to 8 percent slopes. This soil consists of gravelly loam with a rooting depth greater than 60 inches. Parent materials include: Alluvium derived from granite, quartzite and residuum weathered from granite, fanglomerate, and sandstone. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by black grama, blue grama, New Mexico feathergrass, oneseed juniper, sideoats grama, Galleta, pinyon pine. Predawn loam, 1 to 4 percent slopes. This soil consists of loams with a rooting depth greater than 60 inches. Parent materials include: Alluvium derived from granite, schist, and quartzite and eolian material derived from volcanic ash. Average annual precipitation in that area ranges from 13to 15 inches. Vegetation is characterized by blue grama, Galleta, ring muhly, black grama and broom snakeweed.

		Sipapu-Yuzarra-Kachina complex, 5 to 65 percent slopes. These soils consist of gravelly sandy loams and fine sandy loams with rooting depths up to 20 inches as well as greater than 60 inches. Parent materials include: Colluvium and residuum derived from granitic sandstone, siltstone, and mudstone and Alluvium derived from granite, gneiss, and schist over residuum from granite, sandstone, and fanglomerate. Average annual precipitation in that area ranges from 12 to 14 inches. Vegetation is characterized by blue grama, black grama, mountain mahogany, little bluestem, oneseed juniper, pinyon pine, sideoats grama and eriogonum. Tanoan-Encantado complex, 5 to 25 percent slopes. These soils consist of gravelly sandy loams with rooting depths greater than 60 inches. Parent materials include: Alluvium derived from schist, gneiss, granite and basaltic tuff, as well as Colluvium and residuum, derived from granite, fanglomerate, and sandstone. Average annual precipitation in that area ranges from 13 to 15 inches. Vegetation is characterized by blue grama, black grama, ring muhly, New Mexico feathergrass, sideoats grama, Galleta and oneseed juniper. Vitrina-Haozous gravelly coarse sandy loams, 5 to 15 percent slopes, non-flooded and flooded. These soils consist of gravelly coarse sandy loams with rooting depths greater than 60 inches. Parent materials include: alluvium derived from schist, gneiss and granite. Average annual precipitation in this area ranges from 10 to 13 inches. Vegetation is characterized by blue grama, black grama, oak, Galleta and oneseed juniper. Zia fine sandy loam, 0 to 2 percent slopes. This soil consists of fine sandy loams with a rooting depth greater than 60 inches. Parent materials include: Alluvium derived from pumice, volcanic ash, granite, and schist. Average annual precipitation in that area ranges from 10 to 13 inches. Vegetation is characterized by black grama, blue grama, ring muhly, broom snakeweed and Galleta.
	Land Status Acreage	BLM: 3,104 State: 0 Private: 1,280
	Management Objectives	The allotment is under an 'Improve' ('I') management category. 'I' category allotments are managed in a manner to help the allotment achieve satisfactory ecological condition.
	Key Forage Species	western wheat, blue grama, black grama, ring muhly, Galleta, New Mexico feathergrass, sideoats grama, little bluestem, sand dropseed, spike dropseed, Indian ricegrass and bottlebrush squirreltail
	Grazing System	Pasture rotation with private lands
Management Evaluation	Actual Use	Actual use has not been reported and figures below were determined from paid bill reports.

		3001141 AUMs / Year: 65 2007; 65 2006; 65 2005; 65 2004; 65 2003; Non-use 2002; Non-use 2001; Non-use 2000; Non-use 1999; Non-use 1998 3001144 AUMs / Year: 209 2007; 209 2006; 209 2005; 209 2004; 209 2003; 209 2002; 209 2001; 209 2000; 209 1999; 209 1998
	Utilization	Due to the lack of staff utilization studies have not been conducted. During the assessment visit it was determined that the allotment was either receiving slight to moderate amounts of utilization.
	Climate	The past water year (Oct. 1, 2007 – Sept. 30, 2008) the average temperature has been nearly average (0 to 1 degrees Fahrenheit above average) and precipitation has been nearly average (-1 to 0 inches below average). This should provide nearly average plant growth on cool season and warm season plants. During the past 10 years (1998-2007) the temperature has been at or above average and precipitation has been fluctuating annually, but it is important to note that between 2000 and 2004 the 12 month running average was below the annual average. (Based on the Northern Mountains Climate Division, New Mexico from the Western Regional Climate Center.) Climate change is a concern not only in New Mexico but globally. "Effects of increasing atmospheric CO_2 levels on plants are predicted to cause dramatic changes in native vegetation. Global climate change may accelerate rates of plant extinction, while ecosystem structure and function may shift. Ecological response to global changes in climate could shift ecosystems (i.e., shrublands replacing grasslands) and have effects, not only to an individual species, but to the ecosystem itself by additions and deletions of vegetation species" (Johnson, H.B., and H.S. Mayeux. 1992. Viewpoint: A view on species additions and deletions and the balance of nature. Journal of Wildlife Management 45:322-333.) We anticipate that our monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.
	Trend	One long term trend plot has been established on this allotment, but due to lack of staffing it has not been read since 1989. A Rangeland Health Matrix was completed on September 30, 2008. The actual survey forms are available within the allotment file. Below is a summation of the information gathered by the survey.

		Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The percent of indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be 5(score)*10indicators=50/50*100 = 100% similarity, or what is expected based on an Ecological Site Description. Standards for each individual category are met when they are rated Proper Functioning Condition or Functioning at Risk-Upward Trend. Not meeting standards are ratings of; Functioning at Risk-Static, Functioning at Risk-Downward Trend and Non Functional. Soil and Site Stability One indicator was deemed None to Slight, eight were deemed Slight to Moderate and one was deemed Moderate. Rating: 80% Hydrologic Function One indicator was deemed None to Slight, eight were deemed Slight to Moderate and one was deemed Moderate. Rating: 80% Biotic Integrity Four indicators were deemed None to Slight, four were deemed Slight to Moderate and one was deemed Moderate. Rating: 87% Overall Rating: 82% Soils were rated at Proper Functioning Condition, Biotic Flora was rated at Proper Functioning Condition and Biotic Fauna was rated at Proper Functioning Condition. Current livestock does not appear to be adversely affecting this allotment - all standards are being met.
	Riparian	This allotment does not contain any riparian areas.
	Wildlife	Seasonal home ranges in the allotment include those for elk, deer, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects. Elk and deer are grazers/browsers; however there is little dietary overlap between deer and cattle. Best management practices i.e. rotational grazing would ensure that forage production within this area can support both wildlife and livestock on a sustained basis.

	Threatened and Endangered Species	It is determined that there are no federally listed threatened or endangered species likely to be found in the subject allotment. There is no designated critical habitat for any species listed by the USFWS within the allotment.
Conclusions and Recommendations		The vegetation appears to be in good condition with good diversity. Issues on this allotment include; recreational use, urban encroachment and ORV use. It is recommended that grazing be renewed for another 10 years without any changes to the permit.



Jacona (541)

0 0.2 0.4 0.8 1.2 1.6 Miles

N W E S

Legend

- Allotment Boundary
- Bureau of Land Management
- Tribal
- Private

7.5' Topos: Horcado Ranch

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